

What is? Natural Selection?

Changes in Populations

- Adaptations to hunting
- Insecticide Resistance
- Competition for mates

Forming a New Species

- Speciation: formation of a new species
- 3 stages that might lead to a new species:
 - 1) Separation: organisms separate from the group
 - 2) Adaptation: organisms change, adapting to their new environment
 - 3) Division: organisms change so much they can no longer breed with the original group

What are the components of Darwin's Theory of Natural Selection?

- Overproduction: creating more offspring than will survive
- Inherited variation: each offspring is unique due to the variety of genes it inherits
- Struggle to Survive: each organism must find a way to survive despite troubles it encounters. Some don't make it.
- Successful Reproduction: those organisms that are the best fit for their environment survive to reproduce.

Evidence of Changes Over Time and Ancestry?

- Fossils: Trace or remains of an organism that lived long ago.
- Fossil Record: A sequence of life that has been determined by looking at fossils in layers of Earth.
 - It is not complete, but helps us determine common ancestry and age.

Fossils and the Age of Fossils

- Absolute dating: measuring the age of something in years (more accurate)
- Relative dating: telling how old something is compared to something else
- Fossil formation: Organism dies and is buried. Organism decomposes and leaves a hollow mold. Mold is filled in to make cast.

Mass Extinction

- Extinction: When a species dies out completely.
- Mass extinction is when many species die out suddenly.
 - Example: dinosaurs

